

Exploration of the Pathway of College Students' Healthy Eating Habits Based on the Theory of Physical Identity Recognition

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Abstract. With the development of society and lifestyle changes, the dietary habits of contemporary college students exhibit the phenomenon of "three highs and one low" (high calories, high fat, high sugar, and low dietary fiber), which further promotes the trend of chronic diseases becoming more prevalent among younger people. Meanwhile, the proportion of ethnic minority students in universities has been increasing year by year, resulting in greater attention being paid to the dietary habits of ethnic minorities. Health management for ethnic minorities has also become a significant concern. Current research is mostly limited to a single perspective and lacks targeted improvement measures for universities. The theory of Traditional Chinese Medicine (TCM) regarding body constitution can precisely reflect individual differences in health and disease tendencies, providing a theoretical basis for personalized health guidance. This paper focuses on the current situation of college students' diet, and analyzes the causes of the problem from four aspects: family income, school family education, social factors and personal psychological influence. Regarding the measures taken by universities and the cross-border integration, the article proposes a "university - society - family" tripartite collaboration mechanism, and combines the theory of Traditional Chinese Medicine's body constitution to establish a student health file and formulate personalized health guidance plans. This measure provides a practical way to inherit Traditional Chinese Medicine culture, improve college students' physical fitness, and improve the accuracy of college health management.

Keywords: College students, Traditional Chinese Medicine, Tripartite collaboration.

1. Introduction

With the development of society, traditional Chinese dietary habits have undergone significant changes. Especially among contemporary college students, although university canteens offer a wide variety of food choices and provide numerous options for students, most students still have irregular eating habits. The emotional fluctuations of college students affect their dietary structure and daily routines [1]. These bad living habits lay a hidden danger for chronic diseases such as diabetes in the future [2]. Studies have shown that irregular eating patterns can reduce energy metabolism and increase calorie intake, and excessive intake of sweet foods can increase insulin resistance and increase the likelihood of developing diabetes [3]. An epidemiological study indicates that the prevalence of diabetes in Chinese people over the age of 18 is approximately 12%, and diabetes is gradually becoming more common among younger individuals. At present, nutrition and health education in universities has not been fully integrated into the school curriculum. Many universities have a lagging or insufficient understanding of nutrition and health education. There are also problems such as insufficient teaching hours and a lack of systematicness in nutrition education [4]. There is a significant deficiency in nutritional education for college students. Existing research has explored the current situation regarding the relationships among college students' dietary habits, chronic diseases, and their perceived stress. The research results indicate that college students tend to prefer high - salt or high-sugar snacks, and it is rather difficult for them to develop healthy eating habits. This situation may lead to an increased risk of cardiovascular diseases and diabetes, and they also have insufficient awareness of chronic diseases. Female college students are more prone to emotional eating due to excessive dietary control. Moreover, under the multiple pressures of academics and daily life, college students are inclined to choose high-sugar and high-fat foods for psychological comfort [5]. However, existing studies are mostly confined to single-dimensional

analysis, and lack of in-depth exploration of specific coping strategies and cross-term integration of colleges and universities.

This paper focuses on understanding the current situation of college students' eating habits. It primarily discusses the deficiencies and potential of colleges and universities in addressing such issues. Moreover, through a multi-party collaborative intervention strategy, the theory of the traditional Chinese constitution is integrated into it. Traditional Chinese Medicine physique refers to the comprehensive characteristics of the relatively stable morphological structure, physiological function and psychological state formed by the human body under congenital endowment and nurture [6]. The ability to undergo certain adjustments through intervention serves as a crucial basis for assessing health status and disease predisposition. Physique is divided into nine types: peaceful constitution, qi deficiency constitution, yang deficiency constitution, yin deficiency constitution, phlegm-dampness constitution, damp-heat constitution, blood stasis constitution, qi stagnation constitution, and special endowment constitution, reflecting the differences of individual life. According to the physiological characteristics of different constitutions, personalized health management can be achieved, individual health shortcomings can be accurately located, and individual sub-health status can be identified in advance, starting from the perspective of disease prevention, reducing or even eliminating the risk of disease. It can also enrich the function of college students' health records and provide students with simple and easy healthcare methods. This study is based on the theory of Traditional Chinese Medicine constitution and proposes targeted and personalized strategies and measures.

2. The Current Situation of College Students' Eating Habits

Although the diet of some college students in some Chinese universities has improved to a certain extent, there is still a prominent "three highs and one low" phenomenon, namely, excessive intake of high-calorie, high-fat, high-sugar intake and insufficient dietary fiber intake. There are also problems, such as unreasonable nutritional matching and improper selection. This is due to the lack of awareness of healthy eating since childhood, the prevalence of fast-food culture and the influence of the surrounding population. The obesity rate of students aged 8-20 continues to rise at a rate of 2% -3% [7]. It has been reported that the prevalence rates of hypertension, diabetes, hypercholesterolemia and other diseases have increased compared with 2015 [8]. Overweight and obesity caused by unhealthy diets are the primary risk factors for promoting the above-mentioned chronic diseases. The fundamental cause of this phenomenon is the disordered three-meal rhythm of college students. Many students skip breakfast and dinner too late, and rely too much on takeout. The staple food prefers refined grains, insufficient dietary fiber, excessive intake of snacks and beverages, and frequent emotional eating.

At present, the state attaches great importance to the development of ethnic minority regions. With the enrollment expansion of colleges and universities, the proportion of ethnic minority students is gradually increasing, which makes the diet of ethnic minorities receive more attention. Although their diet has unique nutritional characteristics, it also has many habits that are not conducive to physical health. Respecting ethnic folk customs and dietary taboos can also prevent diseases and promote health. This is the key to studying the dietary habits of ethnic minorities. The dietary structure of ethnic minorities in colleges and universities may lead to an increase in the prevalence of chronic diseases. Tibetans eat more high-fat and high-calorie foods such as ghee and dairy products. Although the proportion of overweight and obesity ($\text{BMI} \geq 24 \text{ kg/m}^2$) in the adult population is slightly lower than the national average of 51.2%, it is still as high as 47.9% [9]. Mongolian and Uyghur ethnic groups traditionally favor beef and mutton in their diets, which are characterized by high levels of oil and salt, resulting in excessively greasy food consumption patterns. Consequently, obesity rates among these populations exceed the national average. Relevant epidemiological studies show that the obesity rate of Uyghurs in Kashgar, Xinjiang ($\text{BMI} \geq 28.0 \text{ kg/m}^2$) is 20.76% [10], the adult obesity rate is 16.4% [11], significantly higher than the national level.

3. Factors affecting the eating habits of college students

3.1. Impact of Household Income

The family income situation determines the material conditions that children can enjoy, which leads to the gap in living expenses, which in turn affects the range of choices for their daily consumption. Relevant studies show that the frequency of college students living expenses over 1,000 yuan who almost never consume fried food each week is 7.10%, which is significantly lower than the frequency of college students living expenses of less than 1,000 yuan per month (16.13%) [12]. High-income families can afford high-quality imported ingredients or the opportunity to eat out, which indirectly promotes the growth of certain types of catering businesses. On the contrary, low-income families are forced to choose cheaper and more cost-effective food as their daily diet source.

3.2. The Impact of School and Family Education

The health diet education system in relevant colleges and universities is not perfect, and the course setting is lacking in singularity. Teacher resources are limited, the promotion of healthy eating is not enough, the information dissemination channels are limited, and the dissemination force is weak. Insufficient attention is paid to students' psychological problems related to diet. The lack of family guidance leads to the fragmentation and lack of systematicness in most families' health diet education, resulting in a weak theoretical foundation for such education [13]. Moreover, there is a clear conflict on the boundary of responsibilities and roles between schools and families. Some parents believe that food education should be entirely the responsibility of schools, while schools do not have a clear and clear standard for family education.

3.3. Influence of Social Factors

The society's attitude towards Traditional Chinese Medicine is mixed, and the integration of healthy diet science popularization and traditional Chinese food culture is insufficient, which has a certain negative impact on the health education of college students. At the same time, the mentality of the younger generation to pursue fashion trends prompts them to pay more attention to the appearance and packaging when choosing food, and the development of the Internet has led to online sales. As of December 2021, the number of online shopping users reached 842 million, an increase of 59.68 million compared with December 2020 [14]. Studies have shown that impulse purchases account for 34% of online shopping [15]. Among those who have had online impulse spending, 36% of the respondents would choose impulse purchases of food and beverages, which is one of the categories with a relatively high proportion of online impulse consumption. Impulsive consumption is often accompanied by an incomplete understanding of food nutrition, and college students who purchase food through online shopping may neglect its nutritional value.

3.4. Personal Psychological Impact

Emotional eating is closely related to psychological stress. 60% or more of people who are overweight or obese are also emotional eaters. Psychological stress is an important predictor of emotional eating. Heightened anxiety may lead individuals to resort to consuming snacks as a means of psychological solace. University campuses function as microcosms of society, where students encounter multifaceted pressures. Heightened perception of stress correlates positively with intensified anxiety levels. Such emotional fluctuations may precipitate episodes of binge eating or trigger compensatory snacking behaviors as psychological coping mechanisms [16].

4. Intervention Strategies for College Students' Eating Habits

4.1. Forming Multi-stakeholder Coordinated Intervention Programs

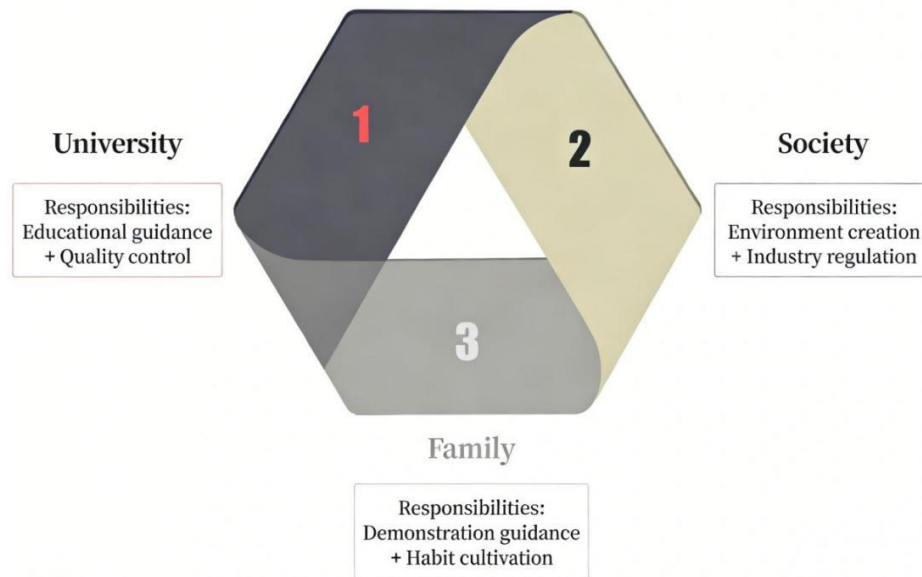


Figure 1. Tripartite collaboration:(Picture credit: Original)

Establishment of a Tripartite Collaborative Mechanism Involving Universities, Society, and Families. Fig 1 illustrates the schematic of this tripartite collaboration. Universities provide students with appropriate education and guidance to shape their values and aesthetic perceptions, thereby effectively reducing the frequency of restrictive eating behaviors among the student population [17], concurrently conducting nutrition education initiatives to enhance the quality and safety of catering services in dining facilities. Society exerts sustained efforts to cultivate a diverse aesthetic environment, guiding members to prioritize the cultivation of personal competencies and inner qualities. Concurrently, it regulates the catering industry and promotes the adoption of health foods incorporating traditional Chinese medicine characteristics. Family members serve as exemplars by modeling consistent and appropriate dietary practices to guide university students in rectifying misguided nutritional habits. Simultaneously, individuals should concentrate on enhancing their intrinsic worth and facilitating balanced development between their internal qualities and external expressions [18]. Inter-university collaboration and family-school partnership serve as pivotal pathways in collectively exploring healthful dietary patterns tailored to university students.

4.2. Integrate with Traditional Chinese Medicine to Provide Personalized Dietary Guidance Programs

Health records based on TCM constitution theory can form a database of physical distribution of students in the whole school, and integrate physical theory into health records, allowing students to learn about traditional Chinese medicine knowledge in daily health management and enhance cultural self-confidence. At present, college students with TCM constitution are in poor health, accounting for 27.11% of them are peaceful, and the proportion of three biased constitutions of qi deficiency, yang deficiency and yin deficiency is relatively high, all reaching about 15% [19]. In conclusion, the integration of traditional Chinese medicine constitution theory into health education in higher education institutions is of critical importance. Based on the theory of "constitution identification" of Traditional Chinese Medicine, the establishment of electronic physical health records of college students can help to collect information. The constitution identification provides a tool for the establishment of health records. According to the electronic health records, it is easy to distinguish different constitutions, and rely on the TCM constitution table to collect health information of different dimensions to formulate personalized healthy diet guidance plans [20].

5. Conclusion

Contemporary university students exhibit a declining level of physical fitness, with increasingly pronounced unhealthy dietary habits. Irregular eating patterns, disordered dietary structures, and emotional eating have become commonplace, contributing to the onset of various chronic diseases. Meanwhile, dietary practices among ethnic minorities also present potential health risks. This study constructs an integrated intervention framework combining "TCM physique theory + multi-party coordination", thereby providing an innovative approach to addressing dietary health challenges among university students. The tripartite coordination mechanism creates a precise and comprehensive health management model for colleges and universities from the three-dimensional perspective of education guidance, environment creation and habit cultivation. Integrating TCM physique theory into college students' health management. By establishing an electronic physical health file, it not only makes up for the limitation of "one-size-fits-all" health management, but also promotes the popularization of Chinese medical culture. In the future, we can first optimize the practical operation process of TCM physique, and combine big data artificial intelligence and other means to realize the convenience of physique identification and improve its accuracy. Secondly, it is necessary to break through geographical restrictions, expand the scope of ethnic research, expand in-depth analysis of dietary differences and characteristics of college students in different regions and ethnic groups, and accurately determine health risks, so as to provide practical and feasible basis for personalized intervention strategies. Finally, explore cross-term diversified practice paths, promote the sharing and integration of college students' healthy diet and educational resources, and at the same time, encourage the society to strengthen the normative regulation and guidance of the catering industry. Colleges and universities should also build a more complete campus diet health support system to provide a more solid guarantee for the all-round healthy development of college students.

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